



## Drinking-water safety - Challenges for community-managed systems

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### Abstract:

A targeted review of documented waterborne disease outbreaks over the past decades reveals some recurring themes that should be understood by drinking-water suppliers. Evidence indicates the outbreaks are often linked to some significant change in conditions that provides a sudden challenge to a water system. Severe weather events, such as heavy rainfall or runoff from snow melt, as well as treatment process and system changes, are common risk factors for drinking-water outbreaks. Failure to recognise warning signs and complacency are important contributors to drinking water becoming unsafe. Drinking-water suppliers must focus on competence and vigilance in maintaining effective multiple barriers appropriate to the challenges facing the drinking-water system. Understanding the risk factors and failure modes of waterborne disease outbreaks is an essential component for effective management of community drinking-water supplies and ensuring the delivery of safe drinking-water to consumers. © IWA Publishing 2008.

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### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Quality, Food/Water Security, Glacier/Snow Melt, Precipitation, Temperature

**Extreme Weather Event:** Drought, Flooding

**Food/Water Quality:** Biotoxin/Algal Bloom, Pathogen, Other Water Quality Issue

**Water Quality (other):** pH; Alkalinity; Turbidity

**Temperature:** Extreme Cold, Extreme Heat, Fluctuations

#### Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

#### Geographic Location:

resource focuses on specific location

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Global or Unspecified

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Infectious Disease, Morbidity/Mortality

**Infectious Disease:** Foodborne/Waterborne Disease

**Foodborne/Waterborne Disease:** Campylobacteriosis, Cryptosporidiosis, E. coli, General Foodborne/Waterborne Disease, Giardiasis, Norovirus, Salmonellosis

**Foodborne/Waterborne Disease (other):** Coxsackievirus B3; Hepatitis A

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Resource Type:**

format or standard characteristic of resource

Review

## **Timescale:**

time period studied

Time Scale Unspecified